# Invoking and Operating SYSBPM

The SYSBPM utility is menu-driven. You can use a function code, SYSBPM direct commands (see the relevant section) or a PF key to perform a specific function.

This section describes how to invoke the SYSBPM utility and how to select functions by using the SYSBPM Main Menu.

In addition, information is provided on the maintenance of further buffer pools and the use of SYSBPM in a Sysplex environment.

The following topics are covered below:

- Invoking SYSBPM
- SYSBPM Main Menu Functions
- Maintenance of Further Buffer Pools
- SYSBPM in a Sysplex Environment

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## Invoking SYSBPM

Below is a rough guideline on how to proceed when planning to apply the SYSBPM utility. Before starting the SYSBPM utility, note that only Natural objects but not sources are loaded into the buffer pool.

### ▶ To invoke the SYSBPM utility

- In the command line, enter the system command SYSBPM.

  The SYSBPM Main Menu is displayed:

```
16:31:07                 ***** NATURAL SYSBPM UTILITY *****              2002-04-12
BPNAME QA31GBP                     - Main Menu -                     Type Global NAT
BPPROP OFF                                                           Loc DAEF QA31
                  Code   Function

                   A     Buffer Pool Statistics
                   C     BP Cache Statistics

                   S     Individual Object Statistics
                   I     Object Directory Information
                   O     Display Object Hexadecimal
                   D     Delete Object from Buffer Pool

                   B     Blacklist Maintenance
                   P     Preload List Maintenance

          Code .. d     Library ... *_____
                        Object .... *_____
                        DBID ...... 0_____   FNR .. 0_____



Command ===>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit  Last        Flip                                  Canc
```

● On the SYSBPM Main Menu, specify the executed object(s) stored in the buffer pool by choosing either of the two options below:

Complete the input fields as described in SYSBPM Main Menu - Fields and Functions below.
Or, in the command line, enter a direct command as described in SYSBPM Direct Commands.

# SYSBPM Main Menu - Fields and Functions

Below are the fields and functions provided on the SYSBPM Main Menu. You invoke the functions by choosing the corresponding Function Code. The functions are described in the relevant sections of the SYSBPM documentation.

| Code | Field/Function | Explanation |
|------|----------------|-------------|
|      | BPNAME | Displays the name of the global buffer pool as specified with the profile parameter BPNAME. See the relevant section in the Natural Parameter Reference documentation. |
|      | BPPROP | Displays the setting of the profile parameter BPPROP to control the propagation of changes to an object in a buffer pool. See the relevant section in the Natural Parameter Reference documentation. |
|      | Type | The type of buffer pool, such as Global or Local. |
|      | Loc | Location. Displays the host ID (in the example screen above: DAEF) and the subsystem ID (in the example screen above: QA31). |
|      | Library | The name of the library where the executed object is stored. You can specify a name or use asterisk (*) notation. The default, asterisk (*), selects all libraries. |
|      | Object | The name of the executed object stored in the buffer pool. The default, asterisk (*), selects all objects. |
|      | DBID/FNR | The database ID (DBID) and file number (FNR) of the system file FNAT or FUSER where the executed object is stored and from where it is loaded. If you specify **0** (this is the default) as DBID or FNR, the specified object(s) will be selected regardless of their DBID and FNR. Any value other than **0** represents a valid DBID or FNR specification. |
|      | Code | The code that corresponds to the function desired. |
| A | Buffer Pool Statistics | This function invokes the BP Statistics Main Menu. From this menu, you can start buffer-pool-related, object-independent statistics functions including hash table statistics. |
| C | Buffer Pool Cache Statistics | Buffer pool (BP) cache required. This function invokes the BP Cache Statistics Main Menu. From this menu, you can start functions for the BP cache. |
| S | Individual Object Statistics | This function displays information on objects currently loaded in the Natural buffer pool and the BP cache (if used). Each list item can be accessed individually, and various functions can be performed for each object. |
| I | Object Directory Information | This function displays the full directory information of a specified object currently contained in the Natural buffer pool. |
| O | Display Object Hexadecimal | This function displays in hexadecimal format a specified Natural object that is currently stored in the buffer pool. |
| D | Delete Object from Buffer Pool | This function is used to delete one or more Natural objects from the buffer pool. |
| B | Blacklist Maintenance | This function invokes the Blacklist Maintenance menu which is used to maintain a blacklist of Natural objects which are **not** to be executed. |
| P | Preload List Maintenance | This function invokes the Preload List Maintenance menu. In a preload list, you can specify the names of Natural objects which are to be loaded into the buffer pool when the buffer pool is initialized. |

# Maintenance of Further Buffer Pools

With the SYSBPM utility, you can also maintain buffer pools other than the current one.

Three functions are provided for this purpose:

- Display Buffer Pools
- Select Buffer Pool
- Reset Buffer Pool

## Display Buffer Pools

When you enter the direct command DISPLAY BUFFERPOOL, a window is displayed which contains the following information on your current (global or local) buffer pool and on all further global buffer pools currently available within your Natural system:

- The name of the buffer pool,
- The type of buffer pool (Natural, Sort, DL/I, Editor, Monitor, Instance)
- The current status,
- The name of the preload list (if applicable) and
- The storage address.

## Select Buffer Pool

When you enter the direct command SELECT BUFFERPOOL, a window is displayed with a list of all buffer pools.

The information displayed is the same as with the function Display Buffer Pools (see above).

In the window, you can select a buffer pool by marking it with any character. Once you have selected a buffer pool from the window, all SYSBPM functions apply to this buffer pool.

Your Natural session itself, however, will continue to run with the original buffer pool.

With the function Reset Buffer Pool (see below), you can switch SYSBPM back to your original buffer pool.

## Reset Buffer Pool

If you have used SYSBPM for another buffer pool (see Select Buffer Pool above), you can switch the applicability of SYSBPM back to the buffer pool used by your current Natural session by using the direct command RESET BUFFERPOOL.

# SYSBPM in a Sysplex Environment

Whenever Natural switches to another operating system image (host), Natural also switches buffer pools. A switch of buffer pools is indicated by a different host ID which is displayed in the Loc field of the SYSBMP screen.

Switching can take place after each terminal I/O, that is, after choosing any function key. After switching, browsing and positioning functions will not be executed (top, bottom, +, -, left, right). Instead, the list starts from the top of the new buffer pool.

If the BPPROP profile parameter (see the relevant section in the Natural Parameter Reference documentation) is set to PLEX or to GPLEX, SYSBPM commands, such as manipulating blacklists, deleting objects or initializing the buffer pool are first executed as usual, and then propagated to other buffer pools available on the same subsystem. If a BP switch caused a function to be aborted or propagated, a corresponding message is issued. There is also a message each time Natural has switched to another host and has changed buffer pools: Attention: BP switched.